

CLAIMS

We claim:

1. A method of screening drug candidates comprising:

- a) providing a cell that expresses an expression profile gene which encodes a protein selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5 or a fragment thereof;
- b) adding a drug candidate to said cell; and
- c) determining the effect of said drug candidate on the expression of said expression profile gene.

2. A method according to claim 1 wherein said determining comprises comparing the level of expression in the absence of said drug candidate to the level of expression in the presence of said drug candidate, wherein the concentration of said drug candidate can vary when present, and wherein said comparison can occur after addition or removal of the drug candidate.

3. A method according to claim 1 wherein the expression of said profile gene is decreased as a result of the introduction of the drug candidate.

4. A method of screening for a bioactive agent capable of binding to a angiogenesis modulator protein (AMP), wherein said AMP is encoded by a nucleic acid selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5, or a fragment thereof, said method comprising combining said AMP and a candidate bioactive agent, and determining the binding of said candidate agent to said AMP.

5. A method for screening for a bioactive agent capable of modulating the activity of a angiogenesis modulator protein (AMP), wherein said AMP is encoded by a nucleic acid selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5, or a fragment thereof, said method comprising:

- a) combining said AMP and a candidate bioactive agent; and
- b) determining the effect of said candidate agent on the bioactivity of said AMP.

6. A method of evaluating the effect of a candidate angiogenesis drug comprising:

- a) administering said drug to a patient;
- b) removing a cell sample from said patient; and
- c) determining the expression profile of said cell.

7. A method according to claim 6 further comprising comparing said expression profile to an expression profile of a healthy individual.

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8. A method of diagnosing angiogenesis comprising:

a) determining the expression of one or more genes selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5, or a fragment thereof in a first type of a first individual; and

5 b) comparing said expression of said gene(s) from a second normal tissue type from said first individual or a second unaffected individual, wherein a difference in said expression indicates that the first individual has tissue that is undergoing angiogenesis.

9. A biochip comprising a nucleic acid segment selected from the group consisting of the sequences set forth in Table 1, Table 2, Table 3, Table 4 and Table 5, wherein said biochip
10 comprises fewer than 1000 nucleic acid probes.

10. A biochip according to claim 9 comprising at least two nucleic acid segments.

11. A method for screening for a bioactive agent capable of interfering with the binding of an angiogenesis modulator protein (AMP) or a fragment thereof and an antibody which binds to said AMP or fragment thereof, said method comprising:

15 a) combining an AMP or fragment thereof, a candidate bioactive agent and an antibody which binds to said AMP or fragment thereof; and

b) determining the binding of said AMP or fragment thereof and said antibody.

12. A method for inhibiting the activity of an angiogenesis modulator protein (AMP), wherein said AMP is encoded by a nucleic acid selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5 or a fragment thereof, said method comprising binding an
20 inhibitor to said AMP.

13. A method according to claim 12 wherein said inhibitor is an antibody.

14. A method of treating a disorder associated with angiogenesis comprising administering to a patient an inhibitor of an angiogenesis modulator protein (AMP), wherein said AMP is encoded by
25 a nucleic acid selected from the group consisting of a nucleic acid of Table 1, Table 2, Table 3, Table 4 and Table 5 or a fragment thereof.

15. A method according to claim 14 wherein said inhibitor is an antibody.

16. A method of neutralizing the effect of an AMP, or a fragment thereof, comprising contacting an agent specific for said protein with said protein in an amount sufficient to effect neutralization.

17. A method for localizing a therapeutic moiety to angiogenic tissue comprising exposing said tissue to an antibody to an AMP or fragment thereof conjugated to said therapeutic moiety.

18. The method of Claim 17, wherein said therapeutic moiety is a cytotoxic agent.

19. The method of Claim 17, wherein said therapeutic moiety is a radioisotope.

20. A method for inhibiting angiogenesis in a cell, wherein said method comprises administering to a cell a composition comprising antisense molecules to a nucleic acid of Table 1, Table 2, Table 3, Table 4 or Table 5.

21. An antibody which specifically binds to a protein encoded by a nucleic acid of Table 1, Table 2, Table 3, Table 4 or Table 5 or a fragment thereof.

22. The antibody of Claim 21, wherein said antibody is a monoclonal antibody.

23. The antibody of Claim 21, wherein said antibody is a humanized antibody.

24. The antibody of Claim 21, wherein said antibody is an antibody fragment.

25. A nucleic acid having a sequence at least 95% homologous to a sequence of a nucleic acid of Table 1, Table 2, Table 3, Table 4 or Table 5 or its complement.

26. A nucleic acid which hybridizes under high stringency to a nucleic acid of Table 1, Table 2, Table 3, Table 4 or Table 5 or its complement.

27. A polypeptide encoded by the nucleic acid of Claim 25 or 26.

28. A method of eliciting an immune response in an individual, said method comprising administering to said individual a composition comprising the polypeptide of Claim 27 or a fragment thereof.

29. A method of eliciting an immune response in an individual, said method comprising administering to said individual a composition comprising a nucleic acid comprising a sequence of a nucleic acid of Table 1, Table 2, Table 3, Table 4 or Table 5 or a fragment thereof.

30. A method for determining the prognosis of an individual with a disorder associated with angiogenesis comprising determining the level of a AMP in a sample, wherein a high level of the AMP indicates a poor prognosis.

31. A method of treating a disorder associated with angiogenesis comprising administering to an individual having a disorder associated with angiogenesis an antibody to a AMP or fragment thereof conjugated to a therapeutic moiety.

32. The method of Claim 31, wherein said therapeutic moiety is a cytotoxic agent.

5 33. The method of Claim 31, wherein said therapeutic moiety is a radioisotope.

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